



A 3 Day Course on **DESIGN BIOPROCESS PLATFORM FOR BIOLOGICAL CONTROL USING MICROBIAL CELLS (FROM CELL BANK TO BULK POWDER)**

15 - 17 JULY 2019 | Jasmine Room, N22, IBD UTM

course introduction

Application of broad spectrum synthetic chemical insecticides as insect disease control had been used since World War II in reducing the vector populations. Many countries have restricted these applications due to their environmental effects on non-target beneficial insects through contamination of food and water supplies. Several problems that caused environmental and human health such as cancer and several immune system disorders occur when using chemical pesticides. Chemical agents are also probable lead to insect resistance and have a long residual effect with toxicity to non-target organisms. Therefore, as an alternative of chemicals, a biocontrol agents and microorganism-based bio pesticides has been introduced to be used as bio pesticide in controlling the agricultural pest.

course objectives

At the end of the course, trainees will be exposed to: -

- i. Understand the main characteristics and differences between the different types of bio factories used in biological control cultivation
- ii. Provide knowledge in setting platform structure for bioprocess in production biological control from laboratory to large scale manufacturing
- iii. Provide technical and professional information required to start-up and establish this type of industry

course content

- i. Introduction to biological control
- ii. Biological control targets, agents and methods
- iii. Methods for biological control implementation
- iv. High cell mass production of biological control
- v. Bioprocess scaling up of biological control-Trichoderma study
- vi. Downstream processing (technology platform)-Harvesting biological control
- vii. Biological control policy and regulations
- viii. Practical session: Culture preparation, media preparation, bioreactor set up, bioreactor operation and troubleshooting, bioreactor preparation, spray dry hands on, media formulation, quality control



www.ibd.utm.my

enquiries

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Register NOW!

M3 : A 3 Day Course on Design Bioprocess Platform for Biological Control Using Microbial Cells (from cell bank to bulk powder)

15 - 17 July 2019 | Jasmine Room, N22 IBD UTM Johor

YES! I would like to register the following participants

Name 1 _____

Job Title _____

Name 2 _____

Job Title _____

COMPANY INFORMATION

Company _____

Address _____

Town _____

State _____

Tel _____ Fax _____

Email _____

Authorised Signatory (*This registration is invalid without signature from an authorised officer)

Name _____

Job Title _____

Tel _____ Fax _____

Email _____

Signature _____

Method of Payment

Please kindly complete and return the reply form together with :

By cheque / Bank Draft which are made payable to **BENDAHARI UTM**

Payment direct to account

Account name **Bendahari UTM**
Bank **CIMB Bank Berhad**
Account No **8006053536**

Cancellation & Substitutions

A full refund will be promptly made for all written cancellations 2 weeks before the course. 50% refund will be made for written cancellations received 7 days before the course. A substitute may be made at any time.

Note

A) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencement date.

B) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.

course fee

Fee is inclusive of lunch, refreshments and course materials.

Accommodation is not included.

Normal Fee
RM **1,500**

Student Fee
RM **1,000**

course tutors



PROF. DR. RER. NAT. HESHAM A. EL ENSHASY | Prof. Dr. rer. Nat. Hesham A. El Enshasy is currently a Professor at IBD. He holds a PhD. in Industrial Biotechnology from TU Braunschweig, Germany and holds various postdoctoral positions at Ohio State Univ. and Germany Research Centre for Biotechnology (GBF), which now has changed its name to Helmholtz Centre for Infection Research. He established different research and industrial platforms for the production of biopharmaceutically important compounds using microbial and non-microbial cells. He also organized different training courses on operation and maintenance of biotechnology equipment both for upstream and downstream applications. Dr. El Enshasy is also working as consultant for biobusiness, technology transfer and biotech. facility design/auditing for many biopharmaceutical companies in Egypt, Belgium, Greece, USA, China and Malaysia.



MS. ROSLINDA ABD MALEK (Senior Research Officer) | She is a graduate from Universiti Teknologi Malaysia in Bachelor of Science (Biology Industry), Malaysia. She received her Master of Science (Biotechnology) in year 2009 and working in IBD for 16 years as Research Officer in Bioprocessing, Fermentation Technology, Microbiology, Microbiology analysis and Biotechnology area. She has an interest in upstream part include scale up study bioreactor from 16L to 1500L, medium optimization, isolation several types of bacteria and basic microbiology fermentation and technology. Furthermore she successfully developed several industrial platforms for bacteria, yeast and mushroom cell cultivation for different industries. She has involved with many contract research and production of microbe from local and international company at IBD



DR DANIEL JOE DAILIN | Dr. Daniel is currently a senior lecturer for Bioprocess and Polymer Engineering, School of Chemical and Energy Engineering, Universiti Teknologi Malaysia. Before joining UTM, he works as a principal scientist in the RND department for Biocon Sdn Bhd, Asia's largest integrated insulins manufacturing facility at the Biotech Park in Johor, Malaysia. He also previously worked as a research scientist under the Centre for Biofuel and Biochemical Research (CBBR), Universiti Teknologi PETRONAS in Perak, Malaysia. He received his Ph.D. in Bioprocess Engineering from Universiti Teknologi Malaysia. Dr. Daniel has more than 8 years of experience working in the operation and process scale up for bioprocess fermentation of bacteria and yeast platform; perform technology transfer activities; planning, carrying out and supervising process trials in laboratories, pilot plants and manufacturing plant.



MR. SOLLEH BIN RAMLI (Research Officer) | Mr Solleh is a research officer in Institute of Bioproduct Development (IBD) at Universiti Teknologi Malaysia (UTM). He graduated from Universiti Putra Malaysia (UPM) in Bachelor of Science (Biotechnology) in 2004. After that he takes an industry skill enhancement program of herbal plantation & processing technology course at AdvancedTM Manufacturing Institute (AMI). His research interests are in Fermentation and Bioprocessing Technology. He is person in charge to operate and handling Bioreactor 16L, 150L and 1500L for research and production of microorganisms in IBD since 2006. He specializes in scaling up process for bioreactor and downstream processing. He has involved with many contract research and production of microbe from local and international company at IBD.